EVALUATING POLICY APPROACHES TO THE RURAL OPIOID EPIDEMIC

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INTRODUCTION

The opioid epidemic is one of the most prominent and daunting public health crises currently plaguing the United States, with particularly severe consequences in rural communities. While previous policy efforts have attempted to address the crisis through prescribing practices and with expanded access to treatments, large gaps remain in regulating pharmaceutical companies. This policy brief aims to evaluate three policy alternatives: maintain the status quo, strengthen prevention through marketing restrictions, and advance harm reduction strategies. These alternatives will be evaluated against overdose rates, economic impact, and disparity reduction between rural and urban communities.

PROBLEM STATEMENT/ SCOPE OF THE PROBLEM/ CURRENT POLICY CONTEXT

The United States continues to suffer from an opioid epidemic that in 2023 took 105,000 lives (CDC, 2025b). The opioid epidemic has come in three waves: the increase in prescription opioids in the 1990s, the prevalence of heroin arising in 2010, and the more recent production of synthetic opioids, specifically those involving illegal fentanyl and fentanyl analogs (CDC, 2025b). This aggressive progression has contributed to a dramatic increase in supply as the CDC reports that "the quantity of prescription painkillers sold… was 4 times larger in 2010 than in 1999" (CDC 2011a).

Opioid addiction threatens all regions of the United States but has disproportionally affected rural communities, where the rates of drug overdose have surpassed the rates in urban areas (CDC, 2024). Data from the CDC shows that patients in rural areas had an 87% greater chance of receiving an opioid prescription than those in urban areas (AHA, 2019). This dramatic difference in the effect on rural communities indicates how pharmaceutical marketing and prescribing behaviors have not been evenly distributed but instead are concentrated in vulnerable populations.

The factors contributing to this disproportionate adverse effect on rural communities include the volume of opioid prescription in rural areas; an out migration of young adults; social network connections that facilitate drug diversion and distribution; and economic stressors that may contribute to overall drug use (Keyes et al., 2014). Rural America has become a target because of the use of opioids in treating chronic pain caused by job-related injuries, leading to the targeting of these communities by pharmaceutical marketing (Van Zee, 2009). Pharmaceutical companies prey on rural areas that are in non-triplicate states, which do not have the strict, multicopy prescription regulations that make it more difficult to monitor addictive opioids (Alpert et al., 2022).

This policy brief will focus on the impact on the people who live in these states and the levers available to address substance use disorder. For example, states control the requirement for the strict, multicopy prescription regulations referenced above. These programs mandated that doctors use state issued triplicate prescription forms to prescribe Schedule II controlled substance (Alpert et al., 2022).

States dictate some of the drug crime punishments that occur within their jurisdictions, which can include a harm reduction route or a punitive route. While the evidence varies in terms of which policies work most effectively, drug crime punishment is another way that the state government has available to combat the opioid epidemic (Kleiman & Heussler, 2011).

In addition, states can control access to Narcan, which can be made available to pharmacists without a patient specific prescription. Another tactic has been co-prescribing to individuals at high risk for overdose and removal of professional, civil, and/or criminal liability for persons administering, prescribing, or dispensing naloxone (Bohler et al., 2022).

Finally, states can manage safe injection sites. While federally safe injection sites are illegal under the Controlled Substance Act, some states have allowed them with evidence for reducing the harms and social costs associated with drug use (Beletsky et al., 2008). This is an example of the tension in the system between levers that states may seek to use to address local conditions and the constraints imposed by federal parameters.

STAKEHOLDERS

One of the most striking aspects of the opioid epidemic, and one of the indicators of what a crisis this is for the country, is the number of stakeholders who are affected, as described below. In addition to the direct impact to individuals suffering from opioid addiction, the effects of the epidemic extend to family members, the community, and the broader society. The persistence of the addiction can have a lasting impact, which makes identifying and implementing the most effective policy interventions even more challenging.

Individuals suffering from drug addiction: An individual suffering from opioid addiction is at risk for death or for other devastating health outcomes. Opioid addiction introduces multiple health risks, including the effects of overdose and various co-morbidities. Individuals addicted to opioids are often challenged in maintaining employment, sustaining housing, and suffering from social stigma.

Families of those affected by drug addiction: Families suffer psychologically from having to watch a close family member fall into the path of addiction. They may also bear the financial burden of rehabilitation and other addiction-related expenses.

Insurance companies: Insurance companies have been criticized for contributing to the opioid epidemic because of the limited coverage that they offer and for being more likely to cover pain management with opioids, which benefits the pharmaceutical companies and can potentially put patients at risk for addiction (Schatman & Webster, 2015).

Healthcare Providers: Local healthcare providers – primary care physicians, nurse practitioners, physician assistants, hospitals, and pharmacies – are responsible for prescribing these powerful drugs and for treating the substance abuse disorder that can follow from prolonged drug use. Depending on their training and experience, the complexities of addiction can be beyond the scope of their typical practice.

Rural Communities: Individuals living in rural communities face barriers to care such as shortages of healthcare providers specializing in this area and longer distances to medical treatment centers. Rural communities burdened with high rates of addiction face lower rates of employment and a declining workforce, which can have long-term negative effects (Mukherjee et al., 2025).

Pharmaceutical companies: Pharmaceutical companies are motivated to maximize earnings, regardless of the risk of substance use disorder. If prescription of opioids in rural communities is profitable, the pharmaceutical companies will continue to expand active in those areas.

Recovery Centers: Recovery centers are limited in rural communities, despite the acute need caused by the opioid crisis and the need for greater capacity.

(BOSTON UNIVERSITY, N.D)

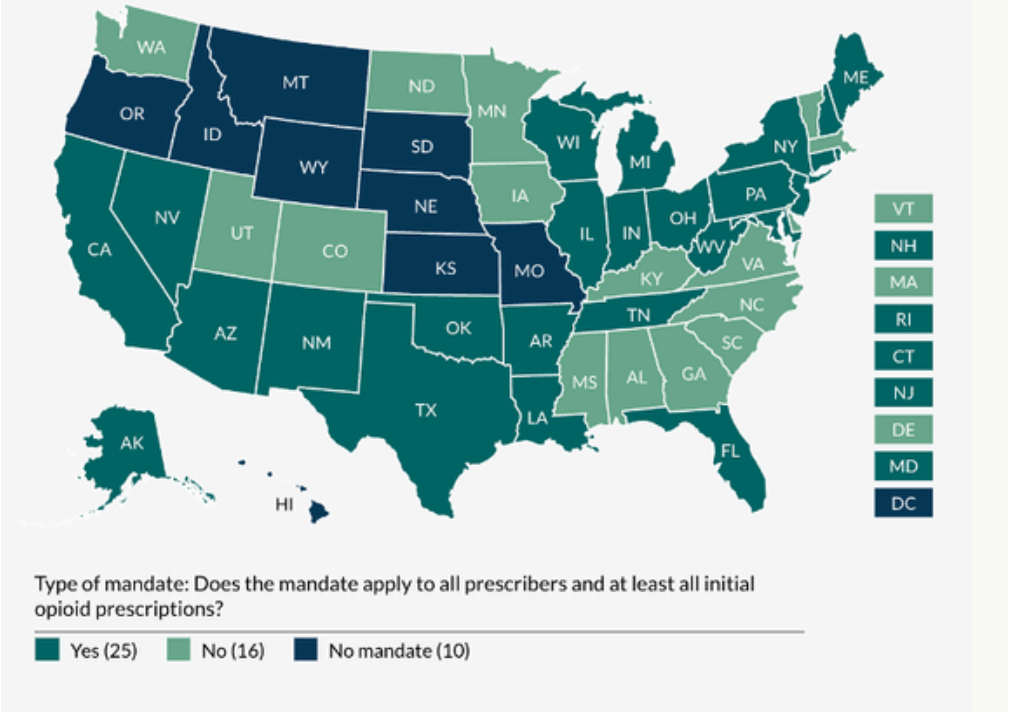
RATIONALE FOR OR AGAINST GOVERNMENT INTERVENTION

Government failure has contributed significantly to the opioid crisis and therefore has the responsibility to be part of the solution. The government's pharmaceutical regulations ultimately failed when companies such as Purdue Pharma were not prevented from targeting vulnerable populations in rural communities with drugs that they knew had highly addictive effects, which they drastically downplayed. Rural communities fell victim to "pill mills that prescribed the opioid medications with little medical and government oversight (Bodrock & Robinson, 2025). The large-scale threat of the opioid epidemic, the complexities of addressing it, and the importance of regulatory controls make government intervention both appropriate and necessary.

Government shortcomings in oversight, regulations, and interventions have led to many of the adverse effects of opioid addiction. The opioid epidemic represents a negative externality where the actions of some organizations impose costs on those that are not involved directly in the transaction. Another aspect of this system failure is asymmetric information with adverse selection. This occurs when one party has more information than the other. In this case, the pharmaceutical companies had more information about the risks of addiction to opioid drugs. Government regulation was ineffectual in the past but could play a more prominent role in the future.

(ROCHA, 2018)

MAP SHOWING WHICH STATES ARE REQUIRED TO USE THE DRUG MONITORING PROGRAM, STATES THAT ARE NOT REQUIRED TO USE DRUG MONITORING PROGRAM, AND STATES WITH NO DRUG MONITORING PROGRAM MANDATE (WHEN ARE PRESCRIBERS REQUIRED TO USE PRESCRIPTION DRUG MONITORING PROGRAMS?, N.D.).



ALTERNATIVE COURSES OF ACTION

Maintain the Status Quo:

Currently, the policies that are working to mitigate the damaging effects of the opioid epidemic are prescription drug monitoring programs. These programs use databases that track dispensed controlled substance prescriptions to reduce the misuse and diversion of controlled substances. While this program has been implemented in all 50 states, there are gaps in implementation and not all physicians are required to use these programs for all prescriptions (When Are Prescribers Required to Use Prescription Drug Monitoring Programs?, n.d.). State governments are entrusted with implementation and individual healthcare providers are using this program. Scaling an intervention like this is challenging, since fidelity to high-quality implementation is at risk for variability. This decentralized approach has led to inconsistency in implementation, use, and outcomes, reflecting uneven effectiveness.

Strengthen Prevention:

A focus on strengthening prevention aims to reduce and restrict the pharmaceutical company marketing. Pharmaceutical companies have historically marketed prescription drugs to patients and healthcare providers while downplaying the risks, this policy intervention would stop pharmaceutical companies from advertising drugs especially to vulnerable populations such as the rural communities. One analysis found that there is a direct correlation between areas targeted for drug company sales and a rise in opioid deaths (McGreal, 2024).

The relationship between pharmaceutical marketing and healthcare providers reflects broader structural challenges. Pharmaceutical companies influence physician behavior through financial incentives, sponsored education, and direct marketing (McGreal, 2024). These findings reinforce the presence of asymmetric information in the opioid market, where

pharmaceutical companies have possessed greater knowledge of addiction risks while promoting opioids as safe and effective. This imbalance contributed directly to overprescribing and increased addiction rates. Strengthening prevention is supported by current policymakers such as Bernie Sanders and Robert F Kennedy showing its possible acceptability in government (News, 2025). With that the state governments would play a role in enforcement, and the federal government would play a role in implementation.

More broadly, education is a key element of an effective prevention strategy to reduce information gaps related to opioid addiction. The CDC emphasizes the importance of early action, learning about risks and dangers, and reducing the stigma that can be associated with opioid addition (CDC, 2025a)

Advance Harm Reduction:

Harm reduction aims to alleviate the negative consequences of opioid use rather than preventing drug use entirely. State government and public health agencies would expand harm reduction services in rural areas. Some of the harm reduction services that can be implemented are community education about opioid use disorder, medication assisted treatment, and syringe service programs (Heo, 2023), (Montaque, 2023). This approach addresses the immediate harms of opioid addiction, with particular attention to reducing overdose deaths. Support for this intervention is in the context of demonstrating reductions in mortality and disease transmission (Bohler et al., 2022), (Beletsky et al., 2008).

(LISTER, 2017)

CRITERIA FOR CHOOSING A COURSE OF ACTION

With the opioid epidemic having had damaging effects for the past three decades, especially in rural communities, a number of policy alternatives have emerged. For each intervention, it is possible to analyze data on efficacy, optimal use of resources, and relative advantages compared to other approaches.

Overdose rates/Addiction Rates (effectiveness): This criterion is an indicator of the extent to which the policy intervention reduces the overdose rates in rural communities. This measure can be calculated based on a rate per 1000 people which is an appropriate basis for a rural community.

Economic impact (costs): The financial burden associated with the opioid epidemic are substantial and certain policies implemented to mitigate the issue are expensive. One relevant measure is the level of healthcare expenditures related to opioid-related hospital visits. Another set of costs relate to the implementation of enforcement tools. Additional measurements can include government spending on education, healthcare, and program implementation.

Difference between rural and urban addiction rates (equity): The focus of this policy brief, and an issue of great concern, is the disproportionate adverse effect of the opioid crisis on rural communities compared to urban areas. Measures in this category will inform the assessment of inequities and disparities. A deeper understanding of experiences in rural communities will make it possible to identify and implement policy interventions that will effectively address the unique needs in those areas. Examples of difference for examination include comparison of overdose rates in urban versus rural areas and analysis of healthcare provider availability rates.

EVALUATION OF ALTERNATIVES BASED ON CRITERIA

Careful consideration of the policy alternatives requires examination through the lens of the criteria described above. The criteria provide clarity on what problems we are trying to solve, what measures are important for the stakeholders who are affected, and what outcomes will indicate success.

Maintain the Status Quo:

The status quo has failed to significantly reduce the overdose deaths as opioid related mortality still remains unacceptably high. Data from the CDC shows that the overdose deaths continue to exceed 100,000 annually showing that current policies have not adequately addressed the current crisis.

Strengthen Prevention:

The focus on prevention addresses the link between marketing and prescribing behavior and responds to the data that shows how this marketing-prescriber dynamic has spurred opioid addiction. Because increased opioid supply is directly associated with higher overdose rates, reducing marketing exposure is likely to decrease both prescribing and addiction.

Evidence from the CDC indicates that higher opioid prescribing rates lead to higher overdose death rates, reinforcing the connection between supply and harm (CDC, 2011b). This approach shows moderate-to-high effectiveness by addressing the root causes of the epidemic. Costs are moderate due to the regulatory oversights that are required for implementation, but the return on that investment is reasonable. This option also presents potential to reduce inequities by focusing on serving rural populations that are disproportionately affected by marketing practices.

Advance Harm Reduction:

An approach focused on harm reduction demonstrates high effectiveness in lowering overdose deaths, particularly through naloxone distribution and medication assisted treatment access (Bohler et al., 2022). However, this intervention carried higher costs with infrastructure changes and program funding. While the potential is present to improve equity by raising access to care in underserved rural areas, social and political resistance can be offsetting factors (Montaque, 2023).

TABLE 1: EVALUATION OF POLICY ALTERNATIVES

Criteria	Status Quo	Prevention	Harm Reduction
Overdose reduction (effectiveness)	Low	Moderate to high	High
Economic Impact (cost)	Low	Moderate	High
Reducing disparity between rural and urban (equity)	Low	High	High

RECOMMENDATION

Based on effectiveness, cost factors, and equity considerations, the policy recommended is to **strengthen prevention**. A policy approach focused on strengthening prevention pro-actively addresses the primary drivers of the opioid epidemic rather than only responding to the consequences. Evidence demonstrates that increased opioid supply is associated with higher overdose rates (CDC, 2011b). By reducing marketing influence, this policy limits the initial exposure to opioids thereby preventing new cases of addiction. This can be complemented by more education and other supporting activities.

By addressing the root cause of overprescribing as a driver of the opioid epidemic, this policy reduces the likelihood of new addiction cases and thus can alleviate the costs associated with long term policies related to harm reduction. In addition, this approach aims to target information asymmetry and regulatory failures that have contributed to the opioid epidemic since that start, as the failure of government oversight led to the misleading promotion of highly addictive substances. Strengthening prevention is an effective solution based on the criteria and is structurally aligned with addressing the root causes of the crisis.

DISCUSSION OF FEASIBILITY

Feasibility points to a commitment to strengthen prevention. Action to strengthen prevention will require coordination of federal legislation to regulate pharmaceutical marketing practices and enforcement from agencies like the Food and Drug Administration and the Federal Trade Commission.

States would play a key complementary role in which they would monitor compliance and integrate restrictions into licensing and prescribing oversight systems. This multi-tiered approach offers a viable path for greater impact on the opioid epidemic and would capitalize on momentum in the government to target pharmaceutical marketing (News, 2025).

CONCLUSION

Since the 1990s, the United States has been plagued by the opioid epidemic. Waves of factors have led to widespread opioid addiction, proliferation of dangerous drugs, and tragic loss of life. Pharmaceutical companies marketed their products to patients and prescribers to maximize profits, grossly understating the addictive nature of these drugs and largely unchecked by ineffective government regulation.

Three decades later, the opioid epidemic continues to disproportionately affect rural America, highlighting the need for targeted and effective policy interventions. While harm reduction strategies are critical for addressing current addiction, prevention policies that limit pharmaceutical marketing offer a more sustainable and impactful long-term solution. This is supported by the analysis of the data and examination of the criteria for effective policy intervention.

By reducing the drivers of opioid misuse and addressing regulatory failures, policymakers can better protect vulnerable populations and reduce overdose deaths. Immediate action is necessary to prevent further loss of life, to address inequities and disparities for rural communities that are intolerable, and to correct systemic failures that have contributed to and exacerbated this public health crisis.

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